Arkansas Department of Health Guidance on the PHIN Messaging Guide for Syndromic Surveillance Emergency Departments and Urgent Care Data

ADT MESSAGES A01, A03, A04, and A08 HL7 Version 2.5.1

(Version 2.3.1 Compatible)

Release 1.0 October 2011



Introduction

The Arkansas Department of Health (ADH) compiled this guide for eligible hospitals and urgent care centers who wish to demonstrate meaningful use of certified electronic health record technology by the submission of Syndromic Surveillance data to Public Health. The information in this guide is based on the *PHIN Messaging Guide for Syndromic Surveillance: Emergency Department and Urgent Care Data* (October 2011) and provides additional guidance that is specific to reporting of Syndromic Surveillance data in Arkansas. This guide is currently provisional; a final version of this guide is expected to be released before the end of the year. Please send questions about the guide to ADH.Syndromic.MU@arkansas.gov.

The minimum data elements requested by ADH to support the current practice of Syndromic Surveillance in Arkansas are listed in a *Table 1* in *Appendix A*. This is a copy from Chapter 4 of the PHIN guide, but with three new data elements and two new columns added indicating differences between PHIN guide and ADH specific requirements. The differences and additions are marked in red color. Users of this guide must be familiar with the details of HL7 message construction and processing. This guide is not intended to be a tutorial on HL7. For more information about HL7 messaging, go to http://www.hl7.org/.

Please note that not all the information presented in the *PHIN Messaging Guide for Syndromic Surveillance: Emergency Department and Urgent Care Data* is replicated in this document. This document was compiled to assist facilities with understanding what segments, and minimum data elements an HL7 2.3.1 or 2.5.1 message should contain for Syndromic Surveillance submission in Arkansas. Please refer to the *PHIN Messaging Guide for Syndromic Surveillance: Emergency Department and Urgent Care Data* for additional information.

This guide is specific to emergency department and urgent care data. Additional guidance for submission of inpatient and ambulatory care data will be posted once they are available. Hospitals and Eligible Providers who desire to submit inpatient or ambulatory care data prior to that date may use this guide in the interim.

Useful Resources

PHIN Messaging Guide for Syndromic Surveillance: Emergency Department and Urgent Care: http://www.cdc.gov/ehrmeaningfuluse/Docs/PHIN%20MSG%20Guide%20for%20SS%20ED%2 Oand%20UC%20Data%20Release%201.pdf

PHIN Conformance Clarification for EHR Certification of Electronic Syndromic Surveillance: http://www.cdc.gov/phin/library/guides/SS%20Addendum.pdf

Arkansas Department of Health Meaningful Use website: http://www.healthy.arkansas.gov/programsServices/MeaningfulUse/SS/Pages/default.aspx

Data Submission Parameters

 The Arkansas Department of Health requests that Syndromic Surveillance data be submitted either as individual messages or in hourly batches. Data submission should occur 24 hours a day. If messages cannot be submitted this frequently, at a minimum, they should be sent as early as possible after midnight and contain all visits from the preceding day.

- Facilities should submit data on all visits to the emergency department or urgent care center with no filtering done prior to submission to ADH. Data on inpatient and ambulatory care may also be submitted, but final guidance on submission has not yet been developed.
- For all coded elements (e.g. CWE.1 and CWE.4), it is strongly recommended that text be sent to accompany any identifier (e.g. CWE.2 and CWE.5). This aids greatly in debugging coding issues and for message validation.
- In MSH.5 and MSH.6, Receiving Application and Receiving Facility, a value of "ADH SS" and "ADH" should be placed if those data elements are sent.

Supported ADT Message Types

Syndromic Surveillance will use information from HL7 Admit-Discharge-Transfer (ADT) messages. Only the following message transaction types will be accepted for emergency department and urgent care Syndromic Surveillance submission:

ADT^A04 (Registration) – A patient has arrived or checked in as a one-time, or recurring outpatient, and is not assigned to a bed.

ADT^A08 (Patient Information Update) – Patient information has changed but no other trigger event has occurred.

ADT^A03 (Discharge) – A patient's stay in a healthcare facility has ended and their status is changed to discharged.

ADT^A01 (Admission) – A patient is undergoing the admission process which assigns the patient to a bed. It signals the beginning of a patient's stay in a healthcare facility.

Supported ADT Message Format

While both HL7 versions 2.3.1 and 2.5.1 are supported under Stage 1 of Meaningful Use, ADH is requesting that all Syndromic Surveillance messages conform to HL7 version 2.5.1 standards. 2.5.1 will be the required format for Stage 2 of Meaningful Use (starting January 1, 2014).

Required Message Segments

R = Required to be sent

RE = Required to be sent but can be empty if information is not available

O = Optional

Segment	A01, A03, A04, A08
Message Header (MSH)	R
Event Type (EVN)	R
Patient Identification (PID)	R
Patient Visit (PV1)	R
Patient Visit – Additional	RE
Information (PV2)	
Observation/Result (OBX)	R
Diagnosis (DG1)	RE

Procedures (PR1)	0
Insurance (IN1)	0

For questions about Syndromic Surveillance submission to the Arkansas Department of Health, please contact: ADH.Syndromic.MU@arkansas.gov.

Appendix A: Minimum Data Element Specifications

The following table contains a minimum list of data elements currently used by the Arkansas Department of Health to conduct Syndromic Surveillance.

Sui	veillance.													
	Table 1 MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality		ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
Tr	Freatment Facility Identifiers													
1	Facility Identifier (Treating)	Unique facility identifier of facility where the patient originally presented (original provider of the data)	R	[11]	R	[11]	Recommend the use of the National Provider Identifier Standard provided by Centers for Medicare and Medicaid Services. For more information about NPI, search for, or to apply for a NPI, click here. Final Rule establishing NPI as standard unique health identifier for health care providers NPI Final Rule	This number should be specific for each facility location (not a number representing an umbrella business) It is recommended that National Provider Identifier (NPI) be used for the Facility Identifier. National Provider Identifier. (10-digit identifier) Note: The use of 'NPI' should be discussed during the implementation process as local jurisdictions may differ on their use of identifiers for this field.	HL7 Version 2.5.1: EVN-7.2 Example EVN-7: OTH_REG_MEDCTR^12 34567890^NPI HL7 Version 2.3.1: OBX Segment_(HD Data Type, 2 nd Component of 5 th field) with PHINQUESTION Code (SS001) Observation Identifier Example OBX Segment: OBX 2 HD SS001^TREATIN G FACILITY					

				TAB	LE 1:	MINIM	JM DATA ELEMENTS		
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location
								Notes: This field should be populated with the NPI number that you registered with ADH as organization NPI or affiliated facility NPI for syndromic surveillance reporting.	IDENTIFIER^PHINQUESTIO N OTHER_REG_MEDCTR^1 234567890^ NPI F 20110 2171531 <cr></cr>
2	Facility Name (Treating)	Name of facility where the patient originally presented (original provider of the data)	0	[01]	0	[01]	Recommend the use of the Organization Name Legal Business Name (LBN) associated with the National Provider Identifier Standard provided by Centers for Medicare and Medicaid Services. For more information about NPI, search for, or to apply for a NPI, click here. Final Rule establishing NPI as standard unique health identifier for health care providers NPI Final Rule	If this data element is captured and maintained as part of the facility registration process, it may not be sent with every message. See ISDS recommendations, section 4.2, on Facility Registration ISDS.	HL7 Version 2.5.1: EVN-7.1 Example EVN-7: OTH_REG_MEDCTR^12 34567890^NPI HL7 Version 2.3.1: OBX Segment (HD Data Type, 1st Component, 5th field) with PHINQUESTION Code (SS001) Observation Identifier

	TABLE 1: MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
									Example OBX Segment: OBX 2 HD SS001^TREATI NG FACILITY IDENTIFIER^PHINQUESTIO N OTHER REG MED CTR^1234567890^NPI F 201102171531 <cr></cr>					
3	Facility Location (Treating) – Street Address	Street address of treating facility location	0	[01]	0	[01]		If this data element is captured and maintained as part of the facility registration process, it may not be sent with every message. See ISDS recommendations, section 4.2, on Facility Registration ISDS.	OBX Segment_(XAD Data Type) with PHINQUESTION Code (SS002) Observation Identifier The XAD Data Type has specific fields to accommodate the street address, city, county and					
4	Facility Location (Treating) - City	City of treating facility location	0	[01]	0	[01]	The ISDS recommendations recommend free text City/Town designations.	If this data element is captured and maintained as part of the facility registration process, it may not be sent with every message. See ISDS recommendations,	state, so only a single OBX is required to pass the data.					

				TAB	LE 1:	MINIMU	UM DATA ELEMENTS		
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location
								section 4.2, on Facility Registration ISDS.	Example OBX segment: OBX 1 XAD SS002^TREAT ING FACILITY
5	Facility Location (Treating) – County	County of treating facility location	0	[01]	0	[01]	The ISDS recommendations allow free text County designations.	If this data element is captured and maintained as part of the facility registration process, it may not be sent with every message. See ISDS recommendations, section 4.2, on Facility Registration ISDS.	LOCATION^PHINQUESTI ON ^^13^30341^USA^C^ ^DEKALB F 20110209 1114 <cr> This data can also be accommodated in the Facility Registration process as defined by ISDS.</cr>
6	Facility Location (Treating) – State	State of treating facility location	0	[01]	0	[01]	2.16.840.1.114222.4.11.830 PHVS_State_FIPS_5-2	If this data element is captured and maintained as part of the facility registration process, it may not be sent with every message. See ISDS recommendations, section 4.2, on Facility Registration ISDS.	
7	Facility / Visit Type	Type of facility that the patient visited for treatment	R	[11]	R	[11]	2.16.840.1.114222.4.11.340 1 PHVS FacilityVisitType SyndromicSurveillance	Relevant facility/visit type values are defined in value set.	OBX Segment_(CWE Data Type) with PHINQUESTION Code (SS003) Observation Identifier

	TABLE 1: MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
								This data can also be accommodated in the Facility Registration process as defined by ISDS for facilities where a single facility/visit type is expected.	Example OBX segment: OBX 2 CWE SS003^FACIL ITY / VISIT TYPE^PHINQUESTION 17 0300000X^Emergency Care ^HCPT F 201102091114 <cr></cr>					
8	Report Date/Time	Date and time of report transmission from original source (from treating facility)	R	[11]	R	[11]		If data flows through an intermediary or third party, the intermediary must keep the original date/time of transmission. HL7 Date/Time Format: YYYYMMDDHHMM[SS[.S[S[S]]]]] [+/-ZZZZ]	EVN-2 Example Report Date/Time: 1:01:59 AM EST on July 4, 2011 20110704010159-0500					

	TABLE 1: MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
Pa	Patient Demographics													
9	Unique Patient Identifier	Unique identifier for the patient	R	[1*]	R	[1*]	2.16.840.1.114222.4.11.340 5 PHVS IdentifierType Syndromi cSurveillance	Unique Patient Identifiers related to individual identifiers based on HL7 Table 0203.	PID-3 The Unique Patient Identifier occurs in the 1st component of the CX data type. The 5th component, the Identifier Type Code, defines the type of identifier used in the 1st component. Example PID-3 Fields: Internal Identifier (PI) [95101100001^^PI] External Identifier (PT) [E95101100001^^PT]					
10	Medical Record #	Patient medical record number	Ο	[01]	0	[01]	2.16.840.1.114222.4.11.340 5 PHVS_IdentifierType_SyndromicSurveillance	It is recommended that data providers submit the patient medical record number to facilitate identification of the patient, in the event of a required follow-up investigation. Without the medical record number, the	PID-3 The Medical Record # is a specific instance of a unique patient identifier. It occurs in the 1 st component of the CX data type. The fifth component, the Identifier Type Code,					

	TABLE 1: MINIMUM DATA ELEMENTS												
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location				
								work required to follow- up on the records of interest greatly increases on the data provider and may cause unacceptable delays in public health response. In addition, the medical record number may aid in record de-duplication efforts and may often aid in the resolution of apparent transcription errors.	defines the identifier as the Medical Record # (MR). Example PID-3 Field: MR101100001^^^MR				
11	Family Name	Patient family name			R	[1*]		The first repetition of patient name field should be the patient's Legal Name. Therefore, the name type code (PID- 5.7) should be populated with "L" (Legal).	PID-5.1.1				

	TABLE 1: MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
12	Given Name	Patient given name			R	[1*]		The first repetition of patient name field should be the patient's Legal Name. Therefore, the name type code (PID-5.7) should be populated with "L" (Legal).	PID-5.2					
13	Date/Time of Birth	Patient birth date/time			R	[11]		Must have month, day and year components.	PID-7					
14	Age	Numeric value of patient age	R	[11]	R	[11]	For OBX-3, please use : 2.16.840.1.114222.4.11.3589 PHVS ObservationIdentifier SyndromicSurveillance	This element is represented by the LOINC code: 21612- 7 in the OBX observation identifier. The actual data value occurs in the 5 th field of the same OBX segment and is Numeric as defined by the OBX Data	OBX Segment_(NM Data Type, 1 st Component, 5 th field) with LOINC Code (21612-7) Observation Identifier Example OBX Segment: OBX 4 NM 21612-7^AGE TIME PATIENT REPORTED^LN 43 a^YEA R^UCUM F 201102171					

	TABLE 1: MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
								Date providers and receivers should determine specific data restrictions for their jurisdiction. Age units correspond to numeric value of patient age (e.g. Days, Month or Years) is populated in OBX-6						
15	Age units	Unit corresponding to numeric value of patient age (e.g. Days, Month or Years)	R	[11]	R	[11]	For OBX-6 Please use: 2.16.840.1.114222.4.11.3402 PHVS AgeUnit SyndromicSurveillance	Relevant Age Unit values are defined in value set. Unknown has been added to the value set to allow for instances where the patient age may not be obtainable. OBX-6 Age units correspond to numeric value of patient age (e.g. Days, Month or Years) used in OBX-5	OBX Segment (CE Data Type, 6 th field) Example OBX Segment: OBX 4 NM 21612-7^AGE TIME PATIENT REPORTED^LN 43 a^YE AR^UCUM F 20110217 1531 <cr></cr>					

	TABLE 1: MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
16	Gender	Gender of patient	RE	[01]	R	[11]	2.16.840.1.114222.4.11.340 3 PHVS Gender SyndromicSurv eillance	Relevant Gender values are defined in value set.	PID-8					
17	City/Town	City/Town of patient residence	0	[01]	R	[11]	The ISDS recommendations allow free text City/Town designations.		PID-11.3					
18	ZIP Code	ZIP Code of patient residence	RE	[01]	R	[11]		Provide a minimum of 5 digits for domestic ZIP codes. Foreign postal codes should be supported.	PID-11.5					
19	State	State of patient residence	0	[01]	R	[11]	2.16.840.1.114222.4.11.830 PHVS State FIPS 5-2	It is recommended that the 2-digit (numeric) abbreviation be used for State of the patient domestic home address.	PID-11.4					
20	Country	Country of patient residence	0	[01]	R	[11]	2.16.840.1.114222.4.11.828 PHVS_Country_ISO_3166-1	It is recommended that the 3-character country codes be used for Country of the patient home address.	PID-11.6					

#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location
21	Race	Race of patient	RE	[0*]	R	[1 *]	2.16.840.1.114222.4.11.836 PHVS RaceCategory CDC	Relevant Race Category values are defined in value set.	PID-10
22	Ethnicity	Ethnicity of patient	RE	[0*]	R	[1 *]	2.16.840.1.114222.4.11.837 PHVS_EthnicityGroup_CDC	Relevant Ethnicity values are defined in value set.	PID-22
23	County	County/Parish Code	RE	[01]	R	[11]	2.16.840.1.114222.4.11.829 PHVS_County_FIPS_6-4	Patient's residence County	PID-11.9

	TABLE 1: MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
Pati	ient Health Inc	licators												
	Unique Visiting ID	Unique identifier for a Patient visit	R	[11]	R	[11]	2.16.840.1.114222.4.11.340 5 PHVS_IdentifierType_SyndromicSurveillance	A visit is defined as a discrete or unique clinical encounter within a service department or location. ⁷	PV1-19 The Unique Visiting ID occurs in the 1 st component of the CX data type. The 5th component, the Identifier Type Code, defines the identifier as the Visit Number (VN). Example PV1-19 Field: VN101100001^^VVN					
25	Visit Date / Time	Date/Time of patient presentation	R	[11]	R	[11]		HL7 Date/Time Format: YYYYMMDDHHMM[SS[.S [S[S[S]]]]] [+/-ZZZZ]	PV1-44 Example Visit Date/Time: 2:06:59 PM EST on April 1, 2011 20110401140659-0500					

The definition of a unique visit in this provisional recommendation differs from BioSense. BioSense rolls multiple visits within a 24-hour period into one visit.

				TAB	LE 1:	MINIM	UM DATA ELEMENTS		
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location
26	Date of onset	Date that patient began having symptoms of condition being reported	0	[01]	RE	[01]	For PBX-3 Please use: 2.16.840.1.114222.4.11.3589 PHVS ObservationIdent ifier SyndromicSurveilla nce	This element is represented by the LOINC code: 11368-8 in the OBX observation identifier. The actual data value occurs in the 5 th field of the same OBX segment and is a Timestamp as defined by the OBX Data Type TS.	OBX Segment_(TS Data Type, 1st Component, 5th field) with LOINC Code (11368-8) Observation Identifier Example OBX Segment: OBX 7 TS 11368-8*ILLNESS OR INJURY ONSET DATE AND TIME:TMSTP:PT:PATIENT:QN^LN 20110215 F 2 01102171658 <cr></cr>
27	Patient Class	Patient classification within facility	0	[01]	RE	[01]	2.16.840.1.114222.4.11.340 4 PHVS_PatientClass_SyndromicSurveillance	Relevant Patient Class values are defined in value set.	PV1-2 It is recommended that PHA constrain the transmitted data from the source using the patient class code set (e.g., only transmit records where patient class = E, Emergency

				TAB	LE 1:	MINIM	UM DATA ELEMENTS		
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location
28	Chief Complaint / Reason for visit	Short description of the chief complaint or reason of patient's visit, recorded when seeking care	RE	[0*]	R	[1*]	For OBX-3 Please use: 2.16.840.1.114222.4.11.3589 PHVS_ObservationIdentifier_SyndromicSurveillance For OBX-5 Please use: Free text Or 2.16.840.1.114222.4.11.856 PHVS_AdministrativeDiagnosis_CDC_ICD-9CM Or 2.16.840.1.114222.4.11.359 3 PHVS_CauseOfDeath_ICD-10_CDC Or 2.16.840.1.114222.4.11.909 PHVS_Disease_CDC (SNOMED Based Valueset) For further guidance refer to the column — 'Recommended HL7 Location'	This element is represented by the LOINC code: 8661-1 in the OBX observation identifier. The actual data value occurs in the 5 th field of the same OBX segment and is Coded with Exception as defined by the OBX Data Type CWE. Using the CWE allows for the possibility of free text, while also allowing for the coded values listed. If data flows through an intermediary or third party, the intermediary must keep the original text (CWE-9) of the transmission. Note: Implementers should check with their local jurisdiction for version of adopted coding system.	OBX Segment_(CWE Data Type, 5 th field) with LOINC Code (8661-1) Observation Identifier Example OBX Segment (free text): OBX 3 CWE 8661- 1^CHIEF COMPLAINT:FIND:PT:PAT IENT:NOM:REPORTED^L N ^^^^STOMACH ACHE F 20110217153 1 <cr> Example OBX Segment (coded and free text): OBX 3 CWE 8661- 1^CHIEF COMPLAINT:FIND:PT:PAT IENT:NOM:REPORTED^L N 7804^Dizziness and giddiness [780.4]^19CDX^^^DIZZY F 201102171531<cr></cr></cr>

				TAB	LE 1:	MINIM	JM DATA ELEMENTS		
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location
29	Triage Notes	Triage notes for the patient visit	0	[01]	RE	[01]	For OBX-3 Please use: 2.16.840.1.114222.4.11.3589 PHVS_ObservationIdentifier_SyndromicSurveillance For OBX-5 Please use: Free text For further guidance refer to the column – 'Recommended HL7 Location'	This element is represented by the LOINC code: 54094-8 in the OBX observation identifier. The actual data value occurs in the 5 th field of the same OBX segment and is Text as defined by the OBX Data Type TX. Triage Notes should be sent as free text. Triage notes may benefit from additional processing (e.g. negation processing, natural language processing, etc.) in order to maximize the utility of the data.	OBX Segment (TX Data Type, 5 th field) with LOINC Code (54094-8) Observation Identifier Example OBX Segment: OBX 1 TX 54094-8^TRIAGE NOTE:FIND:PT:EMERGEN CY DEPARTMENT:DOC^LN P ain a recurrent cramping sensation. F 20110209 1114 <cr></cr>

	TABLE 1: MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
30	Diagnosis / Injury Code	Diagnosis or injury code of patient condition	RE	[0*]	R	[1*]	2.16.840.1.114222.4.11.856 PHVS_AdministrativeDiagnosis_CDC_ICD-9CM Or 2.16.840.1.114222.4.11.359 3 PHVS_CauseOfDeath_ICD-10_CDC Or 2.16.840.1.114222.4.11.909 PHVS_Disease_CDC (SNOMED Based Valueset)	Data should be sent on a regular schedule and should not be delayed for diagnosis or verification procedures. Regular updating of data should be used to correct any errors or send data available later. Include V-codes and E- codes This field is a repeatable field; multiple codes may be sent. The first diagnosis code should be the primary / diagnosis.	DG1-3					
31	Clinical Impression	Clinical impression (free text) of the diagnosis	0	[01]	RE	[01]	For OBX-3 Please use :	This element is represented by the LOINC code: 44833-	OBX Segment_(TX Data Type, 5 th field) with LOINC					

	TABLE 1: MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
							2.16.840.1.114222.4.11.358 9 PHVS ObservationIdentifier SyndromicSurveillance For OBX-5 Please use: Free text For further guidance refer to the column – 'Recommended HL7 Location'	2 in the OBX observation identifier. The actual data value occurs in the 5 th field of the same OBX segment and is Text as defined by the OBX Data Type TX.	Code (44833-2) Observation Identifier Example OBX Segment: OBX 1 TX 44833- 2^DIAGNOSIS.PRELIMINA RY:IMP:PT:PATIENT:NOM :^LN Pain consist with appendicitis F 2011020 91114 <cr></cr>					
32	Diagnosis Type	Qualifier for Diagnosis / Injury Code specifying type of diagnosis	R	[1*]	R	[1*]	2.16.840.1.114222.4.11.827 PHVS DiagnosisType HL7 2x	It is critical to be able to distinguish among the diagnosis types when the syndromic system is receiving messages in real-time.	DG1-6					
33	Discharge Disposition	Patient's anticipated location or status following ED/UC visit	RE	[01]	RE	[01]	2.16.840.1.114222.4.11.915 PHVS_Discharge Disposition_HL7_2x	It is expected that this field will update with multiple submissions.	PV1-36					

	TABLE 1: MINIMUM DATA ELEMENTS												
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location				
							The disposition of the patient at time of discharge (i.e., discharged to home, expired, etc.). Uses Userdefined Table 0112 - Discharge Disposition; this field is used on UB92 FL22.						
34	Disposition Date / Time	Date and time of disposition	0	[01]	RE	[01]		HL7 Date/Time Format: YYYYMMDDHHMM[SS[.S [S[S[S]]]]] [+/-ZZZZ] Send this field as empty if the patient has not been discharged. Do not wait to send data until patient is discharged.	PV1-45 Example Disposition Date/Time: 4:45:12 PM EST on January 13, 2011 20110113164512-0500				
35	Initial Temp- erature	1 st recorded temperature, including units	0	[01]	RE	[01]	For OBX-3 Please use: 2.16.840.1.114222.4.11.3589 PHVS ObservationIdentifier SyndromicSurveillance	This element is represented by the LOINC code: 11289- 6 in the OBX observation identifier.	OBX Segment_(NM Data Type, 1 st Component, 5 th field) with LOINC Code (11289-6) Observation Identifier				

				TAB	LE 4-	·2-1: MI	NIMUM DATA ELEMENT	·s	
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location
							OBX-6 Please use: 2.16.840.1.114222.4.11.919 PHVS_TemperatureUnit_UCUM	The actual data value occurs in the 5 th field of the same OBX segment and is Numeric as defined by the OBX Data Type NM. Units of the temperature must also be included. Fahrenheit and Celsius units of measure are included in the value set.	Example OBX Segment: OBX 3 NM 11289-6^BODY TEMPERATURE:TEMP:EN CTRFIRST:PATIENT:QN^L N 100.1 [degF]^FARENHE IT^UCUM A F 20110217 145139 <cr> Units of measure (OBX-6, (CE Data Type) must be included defining the numeric value.</cr>
36	Initial Pulse Oximetry	1 st recorded pulse oximetry value	0	[01]	RE	[01]	For OBX-3 Please use: 2.16.840.1.114222.4.11.3589 PHVS_ObservationIdentifier_SyndromicSurveillance For OBX-6 Please use: 2.16.840.1.114222.4.11.3590 PHVS_PulseOximetryUnit_UCU M	This element is represented by the LOINC code: 59408-5 in the OBX observation identifier. The actual data value occurs in the 5 th field of the same OBX segment and is numeric as defined by the OBX Data Type NM.	OBX Segment_(NM Data Type, 1st Component, 5th field) with LOINC Code (59408-5) Observation Identifier Example OBX Segment: OBX 4 NM 59408- 5^OXYGEN SATURATION:MFR:PT:BL DA:QN:PULSE OXIMETRY^LN 91 %^PE RCENT^UCUM A F 201 10217145139 <cr></cr>

	TABLE 4-2-1: MINIMUM DATA ELEMENTS													
#	Data Element Name	Description of Field	Usage	Cardinality	ADH Usage	ADH Cardinality	Value Set /Value Domain	Implementation Notes	Recommended HL7 Location					
								Units of measure must also be included. Percentage is the only value included in the value set.	Units of measure (OBX-6, (CE Data Type) must be included defining the numeric value.					